

Application No. 10/561,088
Second Preliminary Amendment

Docket No.: 60680-2091

LISTING OF THE CLAIMS

Please amend the claims as follows:

On page 13 (page 1 of the claims), line 3, please amend the following:

Patent claims What is claimed is:

Claims 1 – 21 (Cancelled)

22. (New) A fuel cell comprising:

at least one plate having a distribution portion for distributing a medium;
at least one distribution structure being disposed within said distribution portion;
whereby said distribution structure is elastic in at least one plane between a loaded
condition and an unloaded condition.

23. (New) The fuel cell of claim 1, wherein said distribution structure is disposed between at
least two plates on a spatially structured layer.

24. (New) The fuel cell of claim 1, wherein said distribution structure is formed by a surface
pressing.

25. (New) The fuel cell of claim 1, wherein said fuel cell includes a plurality of plates
secured together by surface pressing.

26. (New) The fuel cell of claim 1, wherein said fuel cell includes a plurality of plates
secured together by clamping.

27. (New) The fuel cell of claim 1, including a first plate in sealing communication with a
second plate, wherein said distribution structure is disposed between said first plate and said
second plate.

28. (New) The fuel cell of claim 1, wherein said distribution structure provides an
uninterrupted entry and exit for said media.

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29. (New) The fuel cell of claim 1, wherein said distribution structure includes a generally trapezoidal cross-section in said unloaded condition.
30. (New) The fuel cell of claim 1, wherein said distribution structure includes a generally parabolic cross-section in said unloaded condition.
31. (New) The fuel cell of claim 1, wherein said distribution structure includes a generally omega-shaped cross-section in said unloaded condition.
32. (New) The fuel cell of claim 1, wherein said distribution structure is generally elastically deformed in said loaded condition.
33. (New) The fuel cell of claim 1, wherein said distribution structure includes generally deformed sidewalls in said loaded condition.
34. (New) The fuel cell of claim 1, wherein said distribution structure includes discrete projections extending outwardly from said distribution portion.
35. (New) The fuel cell of claim 1, wherein said distribution structure includes a channel.
36. (New) The fuel cell of claim 1, wherein said distribution structure includes partial tapering of a material thickness.
37. (New) The fuel cell of claim 1, wherein said distribution structure includes a plurality of partially different elastic portions.
38. (New) The fuel cell of claim 1, wherein said distribution structure is formed from at least one of a graphite, a graphite-filled plastic, and a conductive plastic.
39. (New) The fuel cell of claim 1, wherein said distribution structure includes a media-tight plate.
40. (New) The fuel cell of claim 1, wherein said distribution structure spring rate is between 0.5 kN/mm per cm² and 50 kN/mm per cm².

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41. (New) The fuel cell of claim 1, wherein said distribution structure includes a first portion having a first space proximate a second portion having a second space, said first portion and said second portion sharing at least one wall.
42. (New) The fuel cell of claim 1, wherein said distribution structure includes a first space having a first opening in a first direction and a second space having an opening in a second direction, said first space being proximate said second space and said first direction being opposite said second direction.
43. (New) The fuel cell of claim 1, wherein said plate is at least one of a cooling plate and a bipolar plate.
44. (New) The fuel cell of claims 1, wherein said fuel cell is an electrolyser system or an electrochemical compressor system.